

REMARKS

1. This is in response to the Office Action mailed 1/16/02. Claims 1-16 remain pending in this application.

2. A re-executed Declaration is enclosed.

3. The Examiner has indicated that the Information Disclosure Statement fails to comply with 37 CFR 1.98(a)(2) and that she has obtained copies of the US patents. However, only 2 US patents (4,036,743 and 5,868,921) are listed on the Examiner's PTO-892 form. Copies of the additional US patents and non-US references are enclosed, along with another IDS. Please initial and return the PTO-1449 form.

4. Applicant requests reconsideration of the rejections under 35 USC 102.

The examiner objects to the novelty of the pending claims 2 and 14 in view of Antos (US 4,036,743). However, Antos relates to a process wherein a single catalyst is used. The catalyst of Anthos is a composite comprising Bi, a halogen, a platinum group metal and nickel, whereas in the present invention precious metal catalyst, a metal oxide and a nickel catalyst are present as separate particles. Thus the present invention involves the use of

several catalysts. As a result, the subject matter of claim 2 and 14 is novel over Anthos.

5. Applicant requests reconsideration of the rejections under 35 USC 103. The enclosed Declaration under 37 CFR 1.132 supports the comments made below.

The examiner rejects claims 1, 3-13 and 15-16 for being obvious in view of Antos. She acknowledges that Antos does not disclose initially treating the feed with a first precious metal catalyst or a precious metal oxide catalyst, but that it would be obvious to include an initial treatment of the Antos feed with a separate precious metal catalyst because Barre (US 5,868,921) illustrates that such a catalyst is effective for hydrotreating.

Applicant traverses the examiners objection, since the combination of the teaching of Barre with the teaching of Anthos would not lead the skilled professional to the present invention.

Firstly, it is observed that, although Barre briefly mentions hydrogenation as an example of hydrotreatment, the citation in fact focuses on cracking and to a some extent to denitrogenation and desulfurization (see examples). Barre does not provide any

details on how to use the catalyst system disclosed in Barre for hydrogenation of sulfur containing feedstocks.

Secondly, it should be noted that, in the same paragraph wherein it is mentioned that the catalysts may be present as an element, an oxide or a sulfide, it is stressed that at least part of the metal components - usually the oxides - on the catalyst should be converted into sulfides (see column 4, lines 61-67 of Barre), which is attained by presulfiding (see column 4, line 67; Example 1, column 6, line 50). In case nickel is used, e.g. as in Example 1 of Barre, one would expect that nickel is also presulfided and transformed into nickel sulfide. In contrast, the present invention feedstocks are hydrogenated in the presence of metallic nickel. There is no indication at all in the cited prior art that sulfur containing feedstocks can be hydrogenated in the presence of metallic nickel in a process as defined in any of the pending claims.

Thirdly, the present invention offers a surprising technical effect, namely it offers a considerable extension of the activity performance. This is demonstrated in the enclosed experimental data, which is discussed in the attached declaration. In the experiments, the performance of processes according to

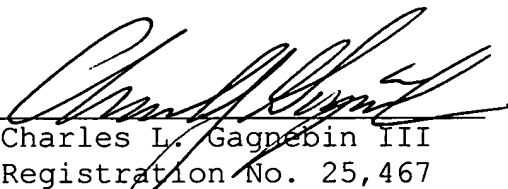
respectively claim 1 and claim 2 were compared with a conventional process, based upon a catalyst similar to the catalyst mentioned in US patent 3,796,654 (catalyst A). This patent was also referred to in the IPER. Although this catalyst is not identical to the catalyst of Anthos, it is believed to suitably demonstrate the effect of the present invention in comparison to processes wherein a single catalyst is used, such as in Anthos.

Please note that the conditions are not optimized with respect to the present invention. The components of the catalysts and their amounts have generally been chosen such that they are in line with the requirements of both the catalyst of US patent 3,796,654 and the catalysts in a process according to the present invention, in order to avoid any bias. In particular the amount of nickel had therefore to be chosen at a relatively low value for a catalyst used in accordance with the present invention.

The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

REESINK ET AL

By:   
Charles L. Gagnebin III  
Registration No. 25,467  
Attorney for Applicant(s)

WEINGARTEN, SCHURGIN,  
GAGNEBIN & LEOVICI LLP  
Ten Post Office Square  
Boston, MA 02109  
Telephone: (617) 542-2290  
Telecopier: (617) 451-0313

ASM/lkw/271924  
Enclosure